



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/897,174	06/29/2001	Jian Li	884.497US1	2926
8791	7590	12/03/2003	EXAMINER	
BLAKELY SOKOLOFF TAYLOR & ZAFMAN 12400 WILSHIRE BOULEVARD, SEVENTH FLOOR LOS ANGELES, CA 90025			DICKEY, THOMAS L	
			ART UNIT	PAPER NUMBER
			2826	

DATE MAILED: 12/03/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/897,174

Applicant(s)

LI ET AL.

Examiner

Thomas L Dickey

Art Unit

2826

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 August 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 and 21-46 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 4,6,13,15,21-26 and 39-46 is/are allowed.
- 6) ☒ Claim(s) 1-9,11-16,18-20,27,28 and 30 is/are rejected.
- 7) ☒ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 June 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) filed 09/04/03.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

Art Unit: 2826

DETAILED ACTION

1. The amendment filed on 08/18/03 has been entered.

Information Disclosure Statement

2. The Information Disclosure Statement filed on 09/04/03 has been considered.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

A. Claims 1-3,5, and 7-10 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Claim 1, as amended 8/18/03, requires that the claimed method necessarily produce a non-optical storage device. There is nothing in the application as filed from which one could conclude that applicants intended to limit their invention to non-optical storage devices, in fact, there is no discussion whatsoever of non-optical storage devices in the original application.

Art Unit: 2826

B. Claims 11,12,14,16-18, and 30 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Claim 1, as amended 8/18/03, requires that the claimed memory necessarily be a non-optical memory. There is nothing in the application as filed from which one could conclude that applicants intended to limit their invention to non-optical memories, in fact, there is no discussion whatsoever of non-optical memories in the original application.

C. Claims 27-29, 31, and 32 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. All of these claims, as amended, require a portable wireless communication device comprising a combination that includes a non-optical memory. There is nothing in the application as filed from which one could conclude that applicants disclosed a non-optical memory in a combination that could serve as portable wireless communication device, in fact, there is no discussion whatsoever of non-optical memories in the original application.

D. Claims 33-38 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter

Art Unit: 2826

which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Claims 33-38 require, as one element, a non-optical ferroelectric polymer memory structure. Further, these claims require said non-optical ferroelectric polymer memory structure in various combinations with a variety of specific elements. The application, as filed, discloses neither the non-optical ferroelectric polymer memory structure nor the various combinations in which the amended claim require it.

Response to Arguments

4. Applicant's arguments with respect to claims 1,2,3,5,7-12,14,16,17,18, and 27-30 have been considered but are moot in view of the new ground(s) of rejection. It is noted that applicant added claims 31-46 without advancing arguments for their patentability over the prior art of record.

Allowable Subject Matter

5. Claims 4 and 39-42 are allowed over the references of record because none of these references disclosed or can be combined to yield the claimed invention such as a memory comprising a damascene structure comprising an electrode; and a ferroelectric polymer structure formed over the damascene structure, as recited in claim 39, or a method that necessarily makes said memory, as recited in claim 4.

Art Unit: 2826

6. Claims 6 and 43-46 are allowed over the references of record because none of these references disclosed or can be combined to yield the claimed invention such as a method comprising forming a first crystalline ferroelectric polymer layer over a substrate; forming a spin-on ferroelectric polymer layer over the first crystalline ferroelectric polymer layer; and forming a second crystalline ferroelectric polymer layer over the spin-on polymer layer as recited in claim 43, or a product that said method necessarily makes, as recited in claim 6.

7. Claims 13 and 15 are allowed over the references of record because none of these references disclosed or can be combined to yield the claimed invention such as a memory comprising a first electrode disposed over a substrate; a ferroelectric polymer structure disposed over the substrate; a protective film disposed over the ferroelectric polymer structure; and a second electrode disposed over the protective film, wherein the ferroelectric polymer structure further comprises: a first crystalline ferroelectric polymer layer disposed over the substrate; a spin-on ferroelectric polymer layer disposed over the first crystalline ferroelectric polymer layer; and a second crystalline ferroelectric polymer layer disposed over the spin-on polymer layer as recited in claim 13.

8. Claims 21-26 are allowed over the references of record for the following reasons: Yoshinaga et al. discloses a cross-point matrix polymer memory with all the limitations of claims 21-26, including first and second refractory metal nitride or oxide (note column

Art Unit: 2826

6 lines 48-55) except the limitation that both the first and second electrodes be made of aluminum. Yoshinaga et al. discloses a first electrode made of aluminum, but in each of the examples given by Yoshinaga et al., at least the second electrode is ITO or some similar transparent conductor. Because Yoshinaga et al. provides for reading the cross-point matrix polymer memory optically, through the second electrode, it would not have been obvious to one having ordinary skill in the art to substitute aluminum for ITO in the second electrode. Note that claim 23 has been rejoined upon allowance of claim 21.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Art Unit: 2826

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas L Dickey whose telephone number is 703-308-0980. The examiner can normally be reached on Monday through Thursday 8 AM to 6 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nathan Flynn can be reached on (703) 308-6601. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9318 for regular communications and 703-872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-3431.

tld
11/2003

A handwritten signature in black ink, appearing to be 'tld', is located below the typed name and date.